

WORLD INTELLECTUAL PROPERTY ORGANIZATION International Bureau



INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(51) International Patent Classification ⁶: H01L 23/00, H01H 59/00

(11) International Publication Number:

WO 00/46852

A1

(43) International Publication Date:

10 August 2000 (10.08.00)

(21) International Application Number:

PCT/SG99/00005

(22) International Filing Date:

4 February 1999 (04.02.99)

2 00)

(0 1102157)

(71) Applicants (for all designated States except US): INSTITUTE OF MICROELECTRONICS [SG/SG]; 10 Science Park RD, #02–19/26 The Alpha, Singapore Science Park II, Singapore 117684 (SG). SIEMENS AG [DE/DE]; Paulsternstrasse 26, D–13629 Berlin (DE).

(72) Inventors; and

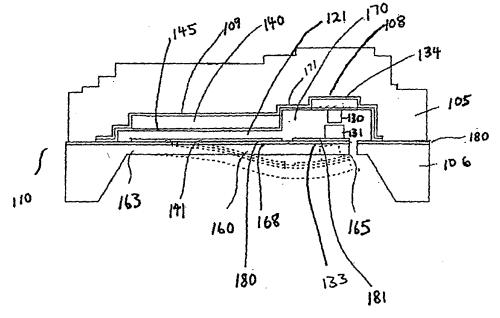
- (75) Inventors/Applicants (for US only): UPPILI, Sridhar [US/SG]; 45A West Coast Way, Hin Sen Garden, Singapore 127012 (SG), VICTOR, D., Samper [GB/SG]; 38 Dover Rise, Tower A, Dover Parkview #03-12, Singapore 138684 (SG). FOO, Pang, Dow [US/SG]; 8 Kent Ridge Road, Singapore 119217 (SG). WAGENAAR, Dirk [DE/DE]; Bergmannstrasse 57, D-10961 Berlin (DE), KAY, Krupka [DE/DE]; Aneasstrasse 12, D-12109 Berlin (DE). SCHLAAK, Helmut [DE/DE]; Schwabstedter Weg 30A, D-13503 Berlin (DE).
- (74) Agent: LAWRENCE Y. D. HO & ASSOCIATES; 30 Bideford RD., #07-01 Thongsia Building, Singapore 229922 (SG).

(81) Designated States: CA, CN, IN, JP, KR, SG, US, European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE).

Published

With international search report.

(54) Title: MICRO-RELAY



(57) Abstract

A microstructure relay comprising an s-shaped support member is provided. The s-shape support member creates over-travel in the relay in order to produce high contact force and low contact resistance over the lifetime of the relay. Compressive and tensile stress-inducing layers on appropriate parts of the support member induce it to bend as desired.